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**What is claimed is:**

1. Radiation image storage panel comprising a self-supporting or supported layer of storage phosphor particles dispersed in a binding medium and, adjacent thereto, a protective coating characterized in that, besides a binder, the said protective coating comprises a white pigment having a refractive index of more than 1.6, and in that said protective coating has a surface roughness (Rz) between 2 and 10  $\mu\text{m}$ .
2. Radiation image storage panel according to claim 1, wherein said protective coating comprises a white pigment having a refractive index of more than 2.0.
3. Radiation image storage panel according to claim 1, wherein said protective coating comprises titanium dioxide as a white pigment.
4. Radiation image storage panel according to claim 1, wherein said surface roughness (Rz) is between 3 and 8  $\mu\text{m}$ .
5. Radiation image storage panel according to claim 2, wherein said surface roughness (Rz) is between 3 and 8  $\mu\text{m}$ .
6. Radiation image storage panel according to claim 3, wherein said surface roughness (Rz) is between 3 and 8  $\mu\text{m}$ .
7. Radiation image storage panel according to claim 1, wherein said binder comprises an acrylate type polymer.
8. Radiation image storage panel according to claim 1, wherein said binder comprises a urethane acrylate.
9. Radiation image storage panel according to claim 2, wherein said binder comprises a urethane acrylate.
10. Radiation image storage panel according to claim 3, wherein said binder comprises a urethane acrylate.

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11. Radiation image storage panel according to claim 1, wherein said white pigment is present in an amount by weight of up to 5 % versus said binder.
12. Radiation image storage panel according to claim 2, wherein said  
5 white pigment is present in an amount by weight of up to 5 % versus said binder.
13. Radiation image storage panel according to claim 3, wherein said white pigment is present in an amount by weight of up to 5 % versus said binder.
- 10 14. Radiation image storage panel according to claim 1, wherein said white pigment is present in an amount by weight of up to 2 % versus said binder.
- 15 15. Radiation image storage panel according to claim 1, wherein said white pigment is present in an amount by weight of up to 1 % versus said binder.
16. Radiation image storage panel according to claim 1, wherein said phosphor particles are dispersed in a binding medium, being a polymeric binder, wherein said phosphor particles are present in a volume ratio of at least 80/20.
- 20 17. Radiation image storage panel according to claim 1, wherein said polymeric binder is at least one member selected from the group consisting of vinyl resins, polyesters, polyurethane resins and thermoplastic rubbers.
- 25 18. Radiation image storage panel according to claim 1, wherein said phosphor particles have a composition selected from the group consisting of BaFBr:Eu type stimuable phosphors.
19. Radiation image storage panel according to claim 1, wherein said phosphor particles have a composition selected from the group consisting of CsBr:Eu type stimuable phosphors.

20. Radiation image storage panel according to claim 1, wherein said protective coating is provided by means of screen printing.